

REMARKS

Applicants respectfully request reconsideration in view of the reasons that follow.

New claims 6 and 7 have been added.

Claims 1-7 are now pending in this application.

Objections to the Specification

The specification and abstract are objected to for containing informalities. The specification and the abstract have been amended to overcome these objections. Withdrawal of this objection is respectfully requested.

Rejection under 35 U.S.C. § 102

Claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2004/0046379 (hereafter “Riefe”). This rejection is respectfully traversed.

Claim 1 recites a support apparatus for a steering column that includes an upper bracket, a lower bracket, a first releasing mechanism, and a second releasing mechanism, the second releasing mechanism including means defining a through-hole in the lower bracket, the front end section of the lower housing being projectable forward through the through-hole, an engaging and releasing device, and “a guide member disposed forward of the through-hole to slidably guide the bottom surface of the lower housing forward generally along an axial direction of the steering column at a normal state when the front end section of the lower housing gets out of the through-hole.”

Riefe discloses a steering column that includes a forward guide bracket 22 and a rearward guide bracket 24 that slidably support guide members 20(a-d). See Riefe at paragraph 0039. Riefe further discloses that the forward guide bracket 22 can include a bearing 36 to rotatably receive the steering shaft 16. See Riefe at paragraph 0040. The Office states that forward guide bracket 22 serves as an upper bracket, the rearward guide bracket 24 serves as a lower bracket, and that bearing 36 serves as a guide member. See Office Action at page 3.

Furthermore, the Office has not explained how the steering shaft 16 serves as a lower housing of the steering column. Nor is the bearing 36 a guide member, as recited in claim 1. The bearing 36 is not disposed forward of the forward bracket 22. Although the bearing 36 is disposed forward of the rearward bracket 24, the steering shaft 16 extends through the forward guide bracket 22 and the rearward guide bracket 24 so that the front end section of the steering shaft 16 is already past the through holes formed in the forward bracket 22 and the rearward bracket 24. Therefore, the bearing 36 is not a guide member disposed forward of a through-hole "...at a normal state when the front end section of the lower housing gets out of the through-hole" because the steering shaft 16 is already out of the through hole in both the forward bracket 22 and the rearward bracket 24.

In relation to the guide members 20(a-d), Riefe discloses that when the steering column collapses the forward and rearward guide brackets 22, 24 are maintained in their original positions while guide members 20(a-d) slide forward through openings 48, 72 in the forward and rearward guide brackets. See Riefe at paragraph 0066. However, as shown in Figures 3 and 4, during collapse of the steering column the front end sections of the guide members 20(a-d) move forward of the forward bracket 22 so that the guide members 20(a-d) become free and unsupported with the bottom surfaces of the guide members 20(a-d) unguided by a guide member. Riefe does not disclose a guide member disposed forward of the forward guide bracket 22.

For at least the reasons noted above, Riefe fails to disclose all of the limitations recited by claim 1. Withdrawal of this rejection is respectfully requested.

Rejection under 35 U.S.C. § 103

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Riefe. This rejection is respectfully traversed.

One feature of the present invention resides in the fact that a guide member (19) is disposed forward of the through-hole to slidably guide the bottom surface of the lower housing (3b) forward generally along an axial direction of the steering column (1) when the front end section of the lower housing (3b) passes through the through-hole. With this

feature, when the airbag device is operated upon collision of the vehicle, the lower housing (3b) of the steering column (1) release from the upper and lower brackets (7,8) through the first and second releasing mechanism (9,10) under impact reaction of operation of the airbag device and therefore moves forward so that the lower housing (3b) passes through the through-hole of the lower bracket (8). At this time, the bottom surface of the lower housing (3b) moves forward along the axis of the steering column (1) upon being slidingly guided by the guide member (19). Accordingly, the lower housing (3b) can be prevented from an excessive downward movement or falling (inclination relative to the axis of the column). As a result, the front end section of the steering column (1) at the steering wheel side can be effectively prevented from its unexpected jumping. As a result, a vehicle occupant can be brought to a suitable position for the airbag device at a vehicle collision thereby further improving safety for the vehicle occupant.

It would not have been obvious to one of ordinary skill in the art to modify the steering column of Riefe to make the support apparatus of claim 1 and/or claim 3. Nor would one of ordinary skill in the art have had a motivation to make such a modification. Riefe does not disclose or suggest the improved safety performance that is provided according to the present invention, as described above. Therefore, withdrawal of this rejection is respectfully requested.

Allowable Subject Matter

Applicants gratefully acknowledge the indication that claims 2, 4, and 5 contain allowable subject matter. Claim 2 has been amended to be placed in independent form. Applicants acknowledge the reasons for allowance recited on pages 4 and 5 the Office Action. However, Applicants submit that the bases for allowance of claims 2, 4, and 5 are not limited to the reasons of allowance recited in the Office Action.

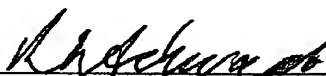
Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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